

## ORAL IMMUNOLOGY USING PLANT PRODUCT CONTAINING A NON-ENTERIC PATHOGEN ANTIGEN

### Abstract of the Disclosure

A method for obtaining an immune response to a non-enteric pathogen antigen (NEPA) such as hepatitis B surface antigen (HBsAg) by feeding the antigen in a plant material to an animal that is immunoreceptive to the NEPA. It has now been discovered that the animal may be made immunoreceptive to the NEPA such as HBsAg by prior primary immunization. When the animal is made immunoreceptive by a prior, e.g. primary, immunization, an immune response to the NEPA may be boosted in the animal by feeding the animal the plant material containing the NEPA. For example, an animal, e.g. a human, that previously had a positive response to primary immunization against hepatitis B, can have a booster response to HBsAg by feeding the animal the antigen in a plant material. The plant material is a substance comprising a physiologically acceptable plant material, especially potatoes, containing the NEPA, e.g. hepatitis B surface antigen (HBsAg). The NEPA, e.g. HBsAg in the plant results from expression by the plant of the NEPA due to genetic alteration.